



SEQUENCE LISTING

<110> Ish-Horowicz, David
Henrique, Domingos Manuel Pinto
Lewis, Julian Hart
Artavanis Tsakonas, Spyridon
Gray, Grace

<120> ANTIBODIES TO VERTEBRATE DELTA PROTEINS
AND FRAGMENTS

<130> 7326-122-999

<140> 09/783, 931
<141> 2001-02-15

<150> 08/981, 392
<151> 1997-12-22

<150> PCT/US96/11178
<151> 1996-06-28

<150> 60/000, 589
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acacaggggc aggaacgcga gcgctgcccc tccgcc atg gga ggc cgc ttc ctg 294
Met Gly Gly Arg Phe Leu
1 5

ctg acg ctc gcc ctc tcg gcg ctg ctg tgc cgc tgc cag gtt gac 342
Leu Thr Leu Ala Leu Leu Ser Ala Leu Leu Cys Arg Cys Gln Val Asp
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Gly Ser Gly Val Phe Glu Leu Lys Leu Gln Glu Phe Val Asn Lys Lys
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Gly Leu Leu Ser Asn Arg Asn Cys Cys Arg Gly Gly Pro Gly Gly
40 45 50

gcc ggg cag cag cag tgc gac tgc aag acc ttc ttc cgc gtc tgc ctg Ala Gly Gln Gln Gln Cys Asp Cys Lys Thr Phe Phe Arg Val Cys Leu	55	60	65	70	486
aag cac tac cag gcc agc gtc tcc ccc gag ccg ccc tgc acc tac ggc Lys His Tyr Gln Ala Ser Val Ser Pro Glu Pro Pro Cys Thr Tyr Gly	75	80	85		534
agc gcc atc acc ccc gtc ctc ggc gcc aac tcc ttc agc gtc ccc gac Ser Ala Ile Thr Pro Val Leu Gly Ala Asn Ser Phe Ser Val Pro Asp	90	95	100		582
ggc gcg ggc ggc gac ccc gcc ttc agc aac ccc atc cgc ttc ccc Gly Ala Gly Gly Ala Asp Pro Ala Phe Ser Asn Pro Ile Arg Phe Pro	105	110	115		630
ttc ggc ttc acc tgg ccc ggc acc ttc tcg ctc atc atc gag gct ctg Phe Gly Phe Thr Trp Pro Gly Thr Phe Ser Leu Ile Ile Glu Ala Leu	120	125	130		678
cac acc gac tcc ccc gac gac ctc acc aca gaa aac ccc gag cgc ctc His Thr Asp Ser Pro Asp Asp Leu Thr Thr Glu Asn Pro Glu Arg Leu	135	140	145	150	726
atc agc cgc ctg gcc acc cag agg cac ctg gcg gtg ggc gag gag tgg Ile Ser Arg Leu Ala Thr Gln Arg His Leu Ala Val Gly Glu Glu Trp	155	160	165		774
tcc cag gac ctg cac agc agc ggc cgc acc gac ctc aag tac tcc tat Ser Gln Asp Leu His Ser Ser Gly Arg Thr Asp Leu Lys Tyr Ser Tyr	170	175	180		822
cgc ttt gtg tgt gat gag cac tac tac ggg gaa ggc tgc tct gtc ttc Arg Phe Val Cys Asp Glu His Tyr Tyr Gly Glu Gly Cys Ser Val Phe	185	190	195		870
tgc cgg ccc cgt gac gac cgc ttc ggt cac ttc acc tgt gga gag cgt Cys Arg Pro Arg Asp Asp Arg Phe Gly His Phe Thr Cys Gly Glu Arg	200	205	210		918
ggc gag aag gtc tgc aac cca ggc tgg aag ggc cag tac tgc act gag Gly Glu Lys Val Cys Asn Pro Gly Trp Lys Gly Gln Tyr Cys Thr Glu	215	220	225	230	966
ccg att tgc ttg cct ggg tgt gac gag cag cac ggc ttc tgc gac aaa Pro Ile Cys Leu Pro Gly Cys Asp Glu Gln His Gly Phe Cys Asp Lys	235	240	245		1014
cct ggg gaa tgc aag tgc aga gtg ggt tgg cag ggg cggt tac tgt gac Pro Gly Glu Cys Lys Cys Arg Val Gly Trp Gln Gly Arg Tyr Cys Asp	250	255	260		1062
gag tgc atc cga tac cca ggc tgc ctg cac ggt acc tgt cag cag cca Glu Cys Ile Arg Tyr Pro Gly Cys Leu His Gly Thr Cys Gln Gln Pro	265	270	275		1110
tgg cag tgc aac tgc cag gaa ggc tgg ggc ggc ctt ttc tgc aac cag Trp Gln Cys Asn Cys Gln Glu Gly Trp Gly Gly Leu Phe Cys Asn Gln	280	285	290		1158

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tac aca ggc tcc agc tgc gag att gaa atc aac gaa tgt gat gcc aac Tyr Thr Gly Ser Ser Cys Glu Ile Glu Ile Asn Glu Cys Asp Ala Asn 330 335 340	1302
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Phe Pro Trp Ile Ala Val Cys Ala Gly Ile Ile Leu Val Leu Met Leu			
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Leu Leu Gly Cys Ala Ala Ile Val Val Cys Val Arg Leu Lys Val Gln			
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Lys Arg His His Gln Pro Glu Ala Cys Arg Ser Glu Thr Glu Thr Met			
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Asn Asn Leu Ala Asn Cys Gln Arg Glu Lys Asp Ile Ser Ile Ser Val			
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atc ggt gcc act cag att aaa aac aca aat aag aaa gta gac ttt cac			2166
Ile Gly Ala Thr Gln Ile Lys Asn Thr Asn Lys Lys Val Asp Phe His			
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Ser Asp Asn Ser Asp Lys Asn Gly Tyr Lys Val Arg Tyr Pro Ser Val			
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gat tac aat ttg gtg cat gaa ctc aag aat gag gac tct gtg aaa gag			2262
Asp Tyr Asn Leu Val His Glu Leu Lys Asn Glu Asp Ser Val Lys Glu			
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gag cat ggc aaa tgc gaa gcc aag tgt gaa acg tat gat tca gag gca			2310
Glu His Gly Lys Cys Glu Ala Lys Cys Glu Thr Tyr Asp Ser Glu Ala			
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gaa gag aaa agc gca gta cag cta aaa agt agt gac act tct gaa aga			2358
Glu Glu Lys Ser Ala Val Gln Leu Lys Ser Ser Asp Thr Ser Glu Arg			
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aaa cgg cca gat tca gta tat tcc act tca aag gac aca aag tac cag			2406
Lys Arg Pro Asp Ser Val Tyr Ser Thr Ser Lys Asp Thr Lys Tyr Gln			
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Ser Val Tyr Val Ile Ser Glu Glu Lys Asp Glu Cys Ile Ile Ala Thr			
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<213> Gallus gallus

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Phe	Phe	Arg	Val	Cys	Leu	Lys	His	Tyr	Gln	Ala	Ser	Val	Ser	Pro	Glu
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 Ile Leu Val Leu Met Leu Leu Gly Cys Ala Ala Ile Val Val Cys
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 Val Arg Leu Lys Val Gln Lys Arg His His Gln Pro Glu Ala Cys Arg
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 Lys Lys Val Asp Phe His Ser Asp Asn Ser Asp Lys Asn Gly Tyr Lys
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 Val Arg Tyr Pro Ser Val Asp Tyr Asn Leu Val His Glu Leu Lys Asn
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 Thr Tyr Asp Ser Glu Ala Glu Glu Lys Ser Ala Val Gln Leu Lys Ser
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<213> Gallus gallus

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 ccagcctcca cctgaaccct gtggggaga gacagaaacc atgaacaacc tagccaattg 1800
 ccagcgcgag aaggacgtt ctgttagcat cattggggct acccagatca agaacaccaa 1860
 caagaaggcg gactttcacg gggaccatgg agccaaagaag agcagctta aggtccgata 1920
 ccccaactgtg gactataacc tcgttcgaga cctcaaggga gatgaagcca cggtcaggga 1980
 tacacacagc aaacgtgaca ccaagtgcga gtcacagagc tctgcaggag aagagaagat 2040
 cgccccaaaca cttaggggtg gggagattcc tgacagaaaa aggccagagt ctgtctactc 2100
 tacttcaaag gacaccaagt accagtcgtgt gtatgttctg tctgcagaaa aggtgagtg 2160
 tgttatagcg actgagctgt aagatggaaag cgatgtggca aaattccat ttctctaaa 2220
 taaaattcca aggatatagc cccgtgaat gctgctgaga gaggaaggga gaggaaaccc 2280
 agggactgct gctgagaacc aggttcagggc gaagctgggtt ctctcagagt tagcagaggc 2340
 gcccgacact gccagcctag gcttggctg ccgtggact gcctgctgg tggccatt 2400
 gcactatggc cagttgtttt gaagagttata tatttaaatg gacgagtgac ttgattcata 2460
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 tagacgggaa aaagaaaacg tgggttattt tttggatt tgtaaaaata ttttcatga 2640
 tatctgtaaa gcttgagttat ttgtgacgt tcattttttt ataatttaaa ttttggtaaa 2700
 tatgtacaaa ggcacttcgg gtctatgtga ctatatttt ttgtatataa atgtatttat 2760
 ggaatattgt gcaaatgtta ttgtgagttt ttactgtttt gttaatgtaa aaattcattt 2820
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 <211> 721
 <212> PRT
 <213> Xenopus

<400> 5
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 20 25 30
 Val Asn Lys Lys Gly Leu Leu Gly Asn Met Asn Cys Cys Arg Pro Gly
 35 40 45
 Ser Leu Ala Ser Leu Gln Arg Cys Glu Cys Lys Thr Phe Phe Arg Ile
 50 55 60
 Cys Leu Lys His Tyr Gln Ser Asn Val Ser Pro Glu Pro Pro Cys Thr
 65 70 75 80
 Tyr Gly Gly Ala Val Thr Pro Val Leu Gly Thr Asn Ser Phe Val Val
 85 90 95
 Pro Glu Ser Ser Asn Ala Asp Pro Thr Phe Ser Asn Pro Ile Arg Phe
 100 105 110
 Pro Phe Gly Phe Thr Trp Pro Gly Thr Phe Ser Leu Ile Ile Glu Ala
 115 120 125
 Ile His Ala Asp Ser Ala Asp Asp Leu Asn Thr Glu Asn Pro Glu Arg
 130 135 140
 Leu Ile Ser Arg Leu Ala Thr Gln Arg His Leu Thr Val Gly Glu Gln
 145 150 155 160
 Trp Ser Gln Asp Leu His Ser Ser Asp Arg Thr Glu Leu Lys Tyr Ser
 165 170 175
 Tyr Arg Phe Val Cys Asp Glu Tyr Tyr Gly Glu Gly Cys Ser Asp
 180 185 190
 Tyr Cys Arg Pro Arg Asp Asp Ala Phe Gly His Phe Ser Cys Gly Glu
 195 200 205
 Lys Gly Glu Lys Leu Cys Asn Pro Gly Trp Lys Gly Leu Tyr Cys Thr
 210 215 220
 Glu Pro Ile Cys Leu Pro Gly Cys Asp Glu His His Gly Tyr Cys Asp

225	230	235	240
Lys Pro Gly Glu Cys Lys Cys Arg Val Gly Trp Gln Gly Arg Tyr Cys			
245	250	255	
Asp Glu Cys Ile Arg Tyr Pro Gly Cys Leu His Gly Thr Cys Gln Gln			
260	265	270	
Pro Trp Gln Cys Asn Cys Gln Glu Gly Trp Gly Gly Leu Phe Cys Asn			
275	280	285	
Gln Asp Leu Asn Tyr Cys Thr His His Lys Pro Cys Glu Asn Gly Ala			
290	295	300	
Thr Cys Thr Asn Thr Gly Gln Gly Ser Tyr Thr Cys Ser Cys Arg Pro			
305	310	315	320
Gly Tyr Thr Gly Ser Asn Cys Glu Ile Glu Val Asn Glu Cys Asp Ala			
325	330	335	
Asn Pro Cys Lys Asn Gly Gly Ser Cys Ser Asp Leu Glu Asn Ser Tyr			
340	345	350	
Thr Cys Ser Cys Pro Pro Gly Phe Tyr Gly Lys Asn Cys Glu Leu Ser			
355	360	365	
Ala Met Thr Cys Ala Asp Gly Pro Cys Phe Asn Gly Gly Arg Cys Ala			
370	375	380	
Asp Asn Pro Asp Gly Gly Tyr Ile Cys Phe Cys Pro Val Gly Tyr Ser			
385	390	395	400
Gly Phe Asn Cys Glu Lys Lys Ile Asp Tyr Cys Ser Ser Asn Pro Cys			
405	410	415	
Ala Asn Gly Ala Arg Cys Glu Asp Leu Gly Asn Ser Tyr Ile Cys Gln			
420	425	430	
Cys Gln Glu Gly Phe Ser Gly Arg Asn Cys Asp Asp Asn Leu Asp Asp			
435	440	445	
Cys Thr Ser Phe Pro Cys Gln Asn Gly Gly Thr Cys Gln Asp Gly Ile			
450	455	460	
Asn Asp Tyr Ser Cys Thr Cys Pro Pro Gly Tyr Ile Gly Lys Asn Cys			
465	470	475	480
Ser Met Pro Ile Thr Lys Cys Glu His Asn Pro Cys His Asn Gly Ala			
485	490	495	
Thr Cys His Glu Arg Asn Asn Arg Tyr Val Cys Gln Cys Ala Arg Gly			
500	505	510	
Tyr Gly Gly Asn Asn Cys Gln Phe Leu Leu Pro Glu Glu Lys Pro Val			
515	520	525	
Val Val Asp Leu Thr Glu Lys Tyr Thr Glu Gly Gln Ser Gly Gln Phe			
530	535	540	
Pro Trp Ile Ala Val Cys Ala Gly Ile Val Leu Val Leu Met Leu Leu			
545	550	555	560
Leu Gly Cys Ala Ala Val Val Val Cys Val Arg Val Arg Val Gln Lys			
565	570	575	
Arg Arg His Gln Pro Glu Ala Cys Arg Gly Glu Ser Lys Thr Met Asn			
580	585	590	
Asn Leu Ala Asn Cys Gln Arg Glu Lys Asp Ile Ser Val Ser Phe Ile			
595	600	605	
Gly Thr Thr Gln Ile Lys Asn Thr Asn Lys Lys Ile Asp Phe Leu Ser			
610	615	620	
Glu Ser Asn Asn Glu Lys Asn Gly Tyr Lys Pro Arg Tyr Pro Ser Val			
625	630	635	640
Asp Tyr Asn Leu Val His Glu Leu Lys Asn Glu Asp Ser Pro Lys Glu			
645	650	655	
Glu Arg Ser Lys Cys Glu Ala Lys Cys Ser Ser Asn Asp Ser Asp Ser			
660	665	670	
Glu Asp Val Asn Ser Val His Ser Lys Arg Asp Ser Ser Glu Arg Arg			
675	680	685	
Arg Pro Asp Ser Ala Tyr Ser Thr Ser Lys Asp Thr Lys Tyr Gln Ser			
690	695	700	
Val Tyr Val Ile Ser Asp Glu Lys Asp Glu Cys Ile Ile Ala Thr Glu			
705	710	715	720

Val

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<212> PRT
<213> Drosophila

<400> 6
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Ile Val Gln Val His Ser Ser Gly Ser Phe Glu Leu Arg Leu Lys Tyr
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Phe Ser Asn Asp His Gly Arg Asp Asn Glu Gly Arg Cys Cys Ser Gly
35 40 45
Glu Ser Asp Gly Ala Thr Gly Lys Cys Leu Gly Ser Cys Lys Thr Arg
50 55 60
Phe Arg Leu Cys Leu Lys His Tyr Gln Ala Thr Ile Asp Thr Thr Ser
65 70 75 80
Gln Cys Thr Tyr Gly Asp Val Ile Thr Pro Ile Leu Gly Glu Asn Ser
85 90 95
Val Asn Leu Thr Asp Ala Gln Arg Phe Gln Asn Lys Gly Phe Thr Asn
100 105 110
Pro Ile Gln Phe Pro Phe Ser Phe Ser Trp Pro Gly Thr Phe Ser Leu
115 120 125
Ile Val Glu Ala Trp His Asp Thr Asn Asn Ser Gly Asn Ala Arg Thr
130 135 140
Asn Lys Leu Leu Ile Gln Arg Leu Leu Val Gln Gln Val Leu Glu Val
145 150 155 160
Ser Ser Glu Trp Lys Thr Asn Lys Ser Glu Ser Gln Tyr Thr Ser Leu
165 170 175
Glu Tyr Asp Phe Arg Val Thr Cys Asp Leu Asn Tyr Tyr Gly Ser Gly
180 185 190
Cys Ala Lys Phe Cys Arg Pro Arg Asp Asp Ser Phe Gly His Ser Thr
195 200 205
Cys Ser Glu Thr Gly Glu Ile Ile Cys Leu Thr Gly Trp Gln Gly Asp
210 215 220
Tyr Cys His Ile Pro Lys Cys Ala Lys Gly Cys Glu His Gly His Cys
225 230 235 240
Asp Lys Pro Asn Gln Cys Val Cys Gln Leu Gly Trp Lys Gly Ala Leu
245 250 255
Cys Asn Glu Cys Val Leu Glu Pro Asn Cys Ile His Gly Thr Cys Asn
260 265 270
Lys Pro Trp Thr Cys Ile Cys Asn Glu Gly Trp Gly Gly Leu Tyr Cys
275 280 285
Asn Gln Asp Leu Asn Tyr Cys Thr Asn His Arg Pro Cys Lys Asn Gly
290 295 300
Gly Thr Cys Phe Asn Thr Gly Glu Gly Leu Tyr Thr Cys Lys Cys Ala
305 310 315 320
Pro Gly Tyr Ser Gly Asp Asp Cys Glu Asn Glu Ile Tyr Ser Cys Asp
325 330 335
Ala Asp Val Asn Pro Cys Gln Asn Gly Gly Thr Cys Ile Asp Glu Pro
340 345 350
His Thr Lys Thr Gly Tyr Lys Cys His Cys Arg Asn Gly Trp Ser Gly
355 360 365
Lys Met Cys Glu Glu Lys Val Leu Thr Cys Ser Asp Lys Pro Cys His
370 375 380
Gln Gly Ile Cys Arg Asn Val Arg Pro Gly Leu Gly Ser Lys Gly Gln
385 390 395 400
Gly Tyr Gln Cys Glu Cys Pro Ile Gly Tyr Ser Gly Pro Asn Cys Asp

405

410

415

Leu Gln Leu Asp Asn Cys Ser Pro Asn Pro Cys Ile Asn Gly Gly Ser
 420 425 430
 Cys Gln Pro Ser Gly Lys Cys Ile Cys Pro Ser Gly Phe Ser Gly Thr
 435 440 445
 Arg Cys Glu Thr Asn Ile Asp Asp Cys Leu Gly His Gln Cys Glu Asn
 450 455 460
 Gly Gly Thr Cys Ile Asp Met Val Asn Gln Tyr Arg Cys Gln Cys Val
 465 470 475 480
 Pro Gly Phe His Gly Thr His Cys Ser Ser Lys Val Asp Leu Cys Leu
 485 490 495
 Ile Arg Pro Cys Ala Asn Gly Gly Thr Cys Leu Asn Leu Asn Asn Asp
 500 505 510
 Tyr Gln Cys Thr Cys Arg Ala Gly Phe Thr Gly Lys Asp Cys Ser Val
 515 520 525
 Asp Ile Asp Glu Cys Ser Ser Gly Pro Cys His Asn Gly Gly Thr Cys
 530 535 540
 Met Asn Arg Val Asn Ser Phe Glu Cys Val Cys Ala Asn Gly Phe Arg
 545 550 555 560
 Gly Lys Gln Cys Asp Glu Glu Ser Tyr Asp Ser Val Thr Phe Asp Ala
 565 570 575
 His Gln Tyr Gly Ala Thr Thr Gln Ala Arg Ala Asp Gly Leu Ala Asn
 580 585 590
 Ala Gln Val Val Leu Ile Ala Val Phe Ser Val Ala Met Pro Leu Val
 595 600 605
 Ala Val Ile Ala Ala Cys Val Val Phe Cys Met Lys Arg Lys Arg Lys
 610 615 620
 Arg Ala Gln Glu Lys Asp Asn Ala Glu Ala Arg Lys Gln Asn Glu Gln
 625 630 635 640
 Asn Ala Val Ala Thr Met His His Asn Gly Ser Ala Val Gly Val Ala
 645 650 655
 Leu Ala Ser Ala Ser Met Gly Gly Lys Thr Gly Ser Asn Ser Gly Leu
 660 665 670
 Thr Phe Asp Gly Gly Asn Pro Asn Ile Ile Lys Asn Thr Trp Asp Lys
 675 680 685
 Ser Val Asn Asn Ile Cys Ala Ser Ala Ala Ala Ala Ala Ala Ala
 690 695 700
 Ala Ala Ala Asp Glu Cys Leu Met Tyr Gly Gly Tyr Val Ala Ser Val
 705 710 715 720
 Ala Asp Asn Asn Ala Asn Ser Asp Phe Cys Val Ala Pro Leu Gln
 725 730 735
 Arg Ala Lys Ser Gln Lys Gln Leu Asn Thr Asp Pro Thr Leu Met His
 740 745 750
 Arg Gly Ser Pro Ala Gly Thr Ser Ala Lys Gly Ala Ser Gly Gly Gly
 755 760 765
 Pro Gly Ala Ala Glu Gly Lys Arg Ile Ser Val Leu Gly Glu Gly Ser
 770 775 780
 Tyr Cys Ser Gln Arg Trp Pro Ser Leu Ala Ala Gly Val Ala Gly
 785 790 795 800
 Asp Leu Phe Ile Gln Leu Met Ala Ala Ser Val Ala Gly Thr Asp
 805 810 815
 Gly Thr Ala Gln Gln Gln Arg Ser Val Val Cys Gly Thr Pro His Met
 820 825 830

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 <211> 46
 <212> PRT
 <213> Drosophila

<400> 7
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Cys Arg Pro Arg Asp Asp Gln Phe Gly His Tyr Ala Cys Gly Ser Glu
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Gly Gln Lys Leu Cys Leu Asn Gly Trp Gln Gly Val Asn Cys
35 40 45

<210> 8
<211> 45
<212> PRT
<213> Gallus gallus

<400> 8
Val Thr Cys Ala Glu His Tyr Tyr Gly Phe Gly Cys Asn Lys Phe Cys
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Arg Pro Arg Asp Asp Phe Phe Thr His His Thr Cys Asp Gln Asn Gly
20 25 30
Asn Lys Thr Cys Leu Glu Gly Trp Thr Gly Pro Glu Cys
35 40 45

<210> 9
<211> 43
<212> PRT
<213> Drosophila

<400> 9
Asn Leu Cys Ser Ser Asn Tyr His Gly Lys Arg Cys Asn Arg Tyr Cys
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Ile Ala Asn Ala Lys Leu His Trp Glu Cys Ser Thr His Gly Val Arg
20 25 30
Arg Cys Ser Ala Gly Trp Ser Gly Glu Asp Cys
35 40

<210> 10
<211> 45
<212> PRT
<213> Drosophila

<400> 10
Val Thr Cys Ala Arg Asn Tyr Phe Gly Asn Arg Cys Glu Asn Phe Cys
1 5 10 15
Asp Ala His Leu Ala Lys Ala Ala Arg Lys Arg Cys Asp Ala Met Gly
20 25 30
Arg Leu Arg Cys Asp Ile Gly Trp Met Gly Pro His Cys
35 40 45

<210> 11
<211> 2692
<212> DNA
<213> mouse

<220>
<221> CDS
<222> (31)...(2199)
<223> Mouse Delta (M-Delta-1) gene

<400> 11

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			Ala Met Gly Arg Arg Ser Ala Leu	
			1	5
gcc ctt	gcc gtg	gtc tct	gcc ctg ctg tgc cag	102
Ala Leu	Ala Val	Val Val	Ser Ala Leu Leu Cys Gln Val Trp Ser Ser Gly	
10	15		20	
gta ttt	gag ctg	aag ctg	cag gag ttc gtc aac aag aag ggg	150
Val Phe	Glu Leu	Lys Leu	Gln Glu Phe Val Asn Lys Lys Gly Leu Leu	
25	30		35	40
ggg aac	cgc aac	tgc tgc	cgc ggg ggc tct ggc ccg cct tgc gcc tgc	198
Gly Asn	Arg Asn	Cys Cys	Arg Gly Ser Gly Pro Pro Cys Ala Cys	
45	50		55	
agg acc	ttc ttt	cgc gta	tgc ctc aag cac tac cag gcc agc gtg tca	246
Arg Thr	Phe Phe	Arg Val	Cys Leu Lys His Tyr Gln Ala Ser Val Ser	
60	65		70	
ccg gag	cca ccc	tgc acc tac	ggc agt gcc gtc acg cca gtg ctg ggt	294
Pro Glu	Pro Pro	Cys Thr	Tyr Gly Ser Ala Val Thr Pro Val Leu Gly	
75	80		85	
gtc gac	tcc ttc	agc ctg	cct gat ggc gca ggc atc gac ccc gcc ttc	342
Val Asp	Ser Phe	Ser Leu	Pro Asp Gly Ala Gly Ile Asp Pro Ala Phe	
90	95		100	
agc aac	ccc atc	cga ttc	ccc ttc ggc ttc acc tgg cca ggt acc ttc	390
Ser Asn	Pro Ile	Arg Phe	Pro Phe Gly Phe Thr Trp Pro Gly Thr Phe	
105	110		115	120
tct ctg	atc att	gaa gcc	ctc cat aca gac tct ccc gat gac ctc gca	438
Ser Leu	Ile Ile	Glu Ala	Leu His Thr Asp Ser Pro Asp Asp Leu Ala	
125	130		135	
aca gaa	aac cca	gaa aga	ctc atc agc cgc ctg acc aca cag agg cac	486
Thr Glu	Asn Pro	Glu Arg	Leu Ile Ser Arg Leu Thr Thr Gln Arg His	
140	145		150	
ctc act	gtg gga	gaa gaa	tgg tct cag gac ctt cac agt agc ggc cgc	534
Leu Thr	Val Gly	Glu Trp	Ser Gln Asp Leu His Ser Ser Gly Arg	
155	160		165	
aca gac	ctc cgg	tac tct	tac cgg ttt gtg tgt gac gag cac tac tac	582
Thr Asp	Leu Arg	Tyr Ser	Tyr Arg Phe Val Cys Asp Glu His Tyr Tyr	
170	175		180	
gga gaa	ggt tgc	tct gtg	ttc tgc cga cct cgg gat gac gcc ttt ggc	630
Gly Glu	Gly Cys	Ser Val	Phe Cys Arg Pro Arg Asp Asp Ala Phe Gly	
185	190		195	200
cac ttc	acc tgc	ggg gac	aga ggg gag aag atg tgc gac cct ggc tgg	678
His Phe	Thr Cys	Gly Asp	Arg Gly Glu Lys Met Cys Asp Pro Gly Trp	
205	210		215	
aaa ggc	cag tac	tgc act	gac cca atc tgt ctg cca ggg tgt gat gac	726
Lys Gly	Gln Tyr	Cys Thr	Asp Pro Ile Cys Leu Pro Gly Cys Asp Asp	
220	225		230	

caa cat gga tac tgt gac aaa cca ggg gag tgc aag tgc aga gtt ggc		774
Gln His Gly Tyr Cys Asp Lys Pro Gly Glu Cys Lys Cys Arg Val Gly		
235	240	245
tgg cag ggc cgc tac tgc gat gag tgc atc cga tac cca ggt tgt gtc		822
Trp Gln Gly Arg Tyr Cys Asp Glu Cys Ile Arg Tyr Pro Gly Cys Val		
250	255	260
cat ggc acc tgc cag caa ccc tgg cag tgt aac tgc cag gaa ggc tgg		870
His Gly Thr Cys Gln Gln Pro Trp Gln Cys Asn Cys Gln Glu Gly Trp		
265	270	275
ggg ggc ctt ttc tgc aac caa gac ctg aac tac tgt act cac cat aag		918
Gly Gly Leu Phe Cys Asn Gln Asp Leu Asn Tyr Cys Thr His His Lys		
285	290	295
ccg tgc agg aat gga gcc acc tgc acc aac acg ggc cag ggg agc tac		966
Pro Cys Arg Asn Gly Ala Thr Cys Thr Asn Thr Gly Gln Gly Ser Tyr		
300	305	310
aca tgt tcc tgc cga cct ggg tat aca ggt gcc aac tgt gag ctg gaa		1014
Thr Cys Ser Cys Arg Pro Gly Tyr Thr Gly Ala Asn Cys Glu Leu Glu		
315	320	325
gta gat gag tgt gct cct agc ccc tgc aag aac gga gcg agc tgc acg		1062
Val Asp Glu Cys Ala Pro Ser Pro Cys Lys Asn Gly Ala Ser Cys Thr		
330	335	340
gac ctt gag gac agc ttc tct tgc acc tgc cct ccc ggc ttc tat ggc		1110
Asp Leu Glu Asp Ser Phe Ser Cys Thr Cys Pro Pro Gly Phe Tyr Gly		
345	350	355
aag gtc tgt gag ctg agc gcc atg acc tgt gca gat ggc cct tgc ttc		1158
Lys Val Cys Glu Leu Ser Ala Met Thr Cys Ala Asp Gly Pro Cys Phe		
365	370	375
aat gga gga cga tgt tca gat aac cct gac gga ggc tac acc tgc cat		1206
Asn Gly Gly Arg Cys Ser Asp Asn Pro Asp Gly Gly Tyr Thr Cys His		
380	385	390
tgc ccc ttg ggc ttc tct ggc ttc aac tgt gag aag aag atg gat ctc		1254
Cys Pro Leu Gly Phe Ser Gly Phe Asn Cys Glu Lys Lys Met Asp Leu		
395	400	405
tgc ggc tct tcc cct tgt tct aac ggt gcc aag tgt gtg gac ctc ggc		1302
Cys Gly Ser Ser Pro Cys Ser Asn Gly Ala Lys Cys Val Asp Leu Gly		
410	415	420
aac tct tac ctg tgc cgg tgc cag gct ggc ttc tcc ggg agg tac tgc		1350
Asn Ser Tyr Leu Cys Arg Cys Gln Ala Gly Phe Ser Gly Arg Tyr Cys		
425	430	435
440		
gag gac aat gtg gat gac tgt gcc tcc tcc ccg tgt gca aat ggg ggc		1398
Glu Asp Asn Val Asp Asp Cys Ala Ser Ser Pro Cys Ala Asn Gly Gly		
445	450	455
acc tgc cgg gac agt gtg aac gac ttc tcc tgt acc tgc cca cct ggc		1446
Thr Cys Arg Asp Ser Val Asn Asp Phe Ser Cys Thr Cys Pro Pro Gly		
460	465	470

tac acg ggc aag aac tgc agc gcc cct gtc agc agg tgt gag cat gca Tyr Thr Gly Lys Asn Cys Ser Ala Pro Val Ser Arg Cys Glu His Ala 475 480 485	1494
ccc tgc cat aat ggg gcc acc tgc cac cag agg ggc cag cgc tac atg Pro Cys His Asn Gly Ala Thr Cys His Gln Arg Gly Gln Arg Tyr Met 490 495 500	1542
tgt gag tgc gcc cag ggc tat ggc ggc ccc aac tgc cag ttt ctg ctc Cys Glu Cys Ala Gln Gly Tyr Gly Pro Asn Cys Gln Phe Leu Leu 505 510 515 520	1590
cct gag cca cca cca ggg ccc atg gtg gtg gac ctc agt gag agg cat Pro Glu Pro Pro Pro Gly Pro Met Val Val Asp Leu Ser Glu Arg His 525 530 535	1638
atg gag agc cag ggc ggg ccc ttc ccc tgg gtg gcc gtg tgt gcc ggg Met Glu Ser Gln Gly Pro Phe Pro Trp Val Ala Val Cys Ala Gly 540 545 550	1686
gtg gtg ctt gtc ctc ctg ctg ctg ggc tgt gct gct gtg gtg gtc Val Val Leu Val Leu Leu Leu Gly Cys Ala Ala Val Val Val 555 560 565	1734
tgc gtc cgg ctg aag cta cag aaa cac cag cct cca cct gaa ccc tgt Cys Val Arg Leu Lys Leu Gln Lys His Gln Pro Pro Pro Glu Pro Cys 570 575 580	1782
ggg gga gag aca gaa acc atg aac aac cta gcc aat tgc cag cgc gag Gly Gly Glu Thr Glu Thr Met Asn Asn Leu Ala Asn Cys Gln Arg Glu 585 590 595 600	1830
aag gac gtt tct gtt agc atc att ggg gct acc cag atc aag aac acc Lys Asp Val Ser Val Ser Ile Ile Gly Ala Thr Gln Ile Lys Asn Thr 605 610 615	1878
aac aag aag gcg gac ttt cac ggg gac cat gga gcc gag aag agc agc Asn Lys Lys Ala Asp Phe His Gly Asp His Gly Ala Glu Lys Ser Ser 620 625 630	1926
ttt aag gtc cga tac ccc act gtg gac tat aac ctc gtt cga gac ctc Phe Lys Val Arg Tyr Pro Thr Val Asp Tyr Asn Leu Val Arg Asp Leu 635 640 645	1974
aag gga gat gaa gcc acg gtc agg gat aca cac agc aaa cgt gac acc Lys Gly Asp Glu Ala Thr Val Arg Asp Thr His Ser Lys Arg Asp Thr 650 655 660	2022
aag tgc cag tca cag agt ctg cag gag aag aga aga tcg ccc caa cac Lys Cys Gln Ser Gln Ser Leu Gln Glu Lys Arg Arg Ser Pro Gln His 665 670 675 680	2070
tta ggg gtg ggg aga ttc ctg aca gaa aac agg cca gag tct gtc tac Leu Gly Val Gly Arg Phe Leu Thr Glu Asn Arg Pro Glu Ser Val Tyr 685 690 695	2118
tct act tca aag gac acc aag tac cag tcg gtg tat gtt ctg tct gca Ser Thr Ser Lys Asp Thr Lys Tyr Gln Ser Val Tyr Val Leu Ser Ala 700 705 710	2166
gaa aag gat gag tgt gtt ata gcg act gag gtg taagatggaa gcgatgtggc	2219

Glu Lys Asp Glu Cys Val Ile Ala Thr Glu Val
715 720

aaaattccca tttctcttaa ataaaattcc aaggatatag ccccgatgaa tgctgctgag 2279
agaggaaggg agagggaaacc cagggactgc tgctgagaac caggttcagg cgaacgtgg 2339
tctctcagag tttagcagagg cgccccacac tgccagccta ggcttggt gccgctggac 2399
tgccctgctgg ttgttcccat tgcactatgg acagttgctt tgaagagtat atatttaat 2459
ggacgagtga cttgattcat ataggaagca cgcactgcc acacgtctat ctggattac 2519
tatgagccag tcttccttg aactagaaa acaactgcct ttattgtcct ttttgatact 2579
gagatgtgtt tttttttt cctagacggg aaaaagaaaa cgtgtgttat ttttttggg 2639
atttgtaaaa atattttca tgattatggg agagctccca acgcgttgg a ggt 2692

<210> 12
<211> 722
<212> PRT
<213> mouse

<400> 12
Met Gly Arg Arg Ser Ala Leu Ala Leu Ala Val Val Ser Ala Leu Leu
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Cys Gln Val Trp Ser Ser Gly Val Phe Glu Leu Lys Leu Gln Glu Phe
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Val Asn Lys Lys Gly Leu Leu Gly Asn Arg Asn Cys Cys Arg Gly Gly
35 40 45
Ser Gly Pro Pro Cys Ala Cys Arg Thr Phe Phe Arg Val Cys Leu Lys
50 55 60
His Tyr Gln Ala Ser Val Ser Pro Glu Pro Pro Cys Thr Tyr Gly Ser
65 70 75 80
Ala Val Thr Pro Val Leu Gly Val Asp Ser Phe Ser Leu Pro Asp Gly
85 90 95
Ala Gly Ile Asp Pro Ala Phe Ser Asn Pro Ile Arg Phe Pro Phe Gly
100 105 110
Phe Thr Trp Pro Gly Thr Phe Ser Leu Ile Ile Glu Ala Leu His Thr
115 120 125
Asp Ser Pro Asp Asp Leu Ala Thr Glu Asn Pro Glu Arg Leu Ile Ser
130 135 140
Arg Leu Thr Thr Gln Arg His Leu Thr Val Gly Glu Glu Trp Ser Gln
145 150 155 160
Asp Leu His Ser Ser Gly Arg Thr Asp Leu Arg Tyr Ser Tyr Arg Phe
165 170 175
Val Cys Asp Glu His Tyr Tyr Gly Glu Gly Cys Ser Val Phe Cys Arg
180 185 190
Pro Arg Asp Asp Ala Phe Gly His Phe Thr Cys Gly Asp Arg Gly Glu
195 200 205
Lys Met Cys Asp Pro Gly Trp Lys Gly Gln Tyr Cys Thr Asp Pro Ile
210 215 220
Cys Leu Pro Gly Cys Asp Asp Gln His Gly Tyr Cys Asp Lys Pro Gly
225 230 235 240
Glu Cys Lys Cys Arg Val Gly Trp Gln Gly Arg Tyr Cys Asp Glu Cys
245 250 255
Ile Arg Tyr Pro Gly Cys Val His Gly Thr Cys Gln Gln Pro Trp Gln
260 265 270
Cys Asn Cys Gln Glu Gly Trp Gly Gly Leu Phe Cys Asn Gln Asp Leu
275 280 285
Asn Tyr Cys Thr His His Lys Pro Cys Arg Asn Gly Ala Thr Cys Thr
290 295 300
Asn Thr Gly Gln Gly Ser Tyr Thr Cys Ser Cys Arg Pro Gly Tyr Thr
305 310 315 320
Gly Ala Asn Cys Glu Leu Glu Val Asp Glu Cys Ala Pro Ser Pro Cys
325 330 335
Lys Asn Gly Ala Ser Cys Thr Asp Leu Glu Asp Ser Phe Ser Cys Thr

340	345	350
Cys Pro Pro Gly Phe Tyr Gly Lys Val Cys Glu Leu Ser Ala Met Thr		
355	360	365
Cys Ala Asp Gly Pro Cys Phe Asn Gly Gly Arg Cys Ser Asp Asn Pro		
370	375	380
Asp Gly Gly Tyr Thr Cys His Cys Pro Leu Gly Phe Ser Gly Phe Asn		
385	390	395
400		
Cys Glu Lys Lys Met Asp Leu Cys Gly Ser Ser Pro Cys Ser Asn Gly		
405	410	415
Ala Lys Cys Val Asp Leu Gly Asn Ser Tyr Leu Cys Arg Cys Gln Ala		
420	425	430
Gly Phe Ser Gly Arg Tyr Cys Glu Asp Asn Val Asp Asp Cys Ala Ser		
435	440	445
Ser Pro Cys Ala Asn Gly Gly Thr Cys Arg Asp Ser Val Asn Asp Phe		
450	455	460
Ser Cys Thr Cys Pro Pro Gly Tyr Thr Gly Lys Asn Cys Ser Ala Pro		
465	470	475
480		
Val Ser Arg Cys Glu His Ala Pro Cys His Asn Gly Ala Thr Cys His		
485	490	495
Gln Arg Gly Gln Arg Tyr Met Cys Glu Cys Ala Gln Gly Tyr Gly Gly		
500	505	510
Pro Asn Cys Gln Phe Leu Leu Pro Glu Pro Pro Gly Pro Met Val		
515	520	525
Val Asp Leu Ser Glu Arg His Met Glu Ser Gln Gly Gly Pro Phe Pro		
530	535	540
Trp Val Ala Val Cys Ala Gly Val Val Leu Val Leu Leu Leu Leu		
545	550	555
560		
Gly Cys Ala Ala Val Val Val Cys Val Arg Leu Lys Leu Gln Lys His		
565	570	575
Gln Pro Pro Pro Glu Pro Cys Gly Gly Glu Thr Glu Thr Met Asn Asn		
580	585	590
Leu Ala Asn Cys Gln Arg Glu Lys Asp Val Ser Val Ser Ile Ile Gly		
595	600	605
Ala Thr Gln Ile Lys Asn Thr Asn Lys Lys Ala Asp Phe His Gly Asp		
610	615	620
His Gly Ala Glu Lys Ser Ser Phe Lys Val Arg Tyr Pro Thr Val Asp		
625	630	635
640		
Tyr Asn Leu Val Arg Asp Leu Lys Gly Asp Glu Ala Thr Val Arg Asp		
645	650	655
Thr His Ser Lys Arg Asp Thr Lys Cys Gln Ser Gln Ser Leu Gln Glu		
660	665	670
Lys Arg Arg Ser Pro Gln His Leu Gly Val Gly Arg Phe Leu Thr Glu		
675	680	685
Asn Arg Pro Glu Ser Val Tyr Ser Thr Ser Lys Asp Thr Lys Tyr Gln		
690	695	700
Ser Val Tyr Val Leu Ser Ala Glu Lys Asp Glu Cys Val Ile Ala Thr		
705	710	715
Glu Val		720

<210> 13
<211> 578
<212> PRT
<213> Artificial Sequence

<220>
<223> Consenses sequence of Chick Delta and Mouse Delta

<400> 13
Met Gly Arg Leu Leu Ala Ser Ala Leu Leu Cys Val Ser Gly Val Phe

1	5	10	15												
Glu	Leu	Lys	Leu	Gln	Glu	Phe	Val	Asn	Lys	Lys	Gly	Leu	Leu	Asn	Arg
20	25	30													
Asn	Cys	Cys	Arg	Gly	Gly	Gly	Cys	Cys	Thr	Phe	Phe	Arg	Val	Cys	Leu
35	40	45													
Lys	His	Tyr	Gln	Ala	Ser	Val	Ser	Pro	Glu	Pro	Pro	Cys	Thr	Tyr	Gly
50	55	60													
Ser	Ala	Thr	Pro	Val	Leu	Gly	Ser	Phe	Ser	Pro	Asp	Gly	Ala	Gly	Asp
65	70	75	80												
Pro	Ala	Phe	Ser	Asn	Pro	Ile	Arg	Phe	Pro	Phe	Gly	Phe	Thr	Trp	Pro
85	90	95													
Gly	Thr	Phe	Ser	Leu	Ile	Ile	Glu	Ala	Leu	His	Thr	Asp	Ser	Pro	Asp
100	105	110													
Asp	Leu	Thr	Glu	Asn	Pro	Glu	Arg	Leu	Ile	Ser	Arg	Leu	Thr	Gln	Arg
115	120	125													
His	Leu	Val	Gly	Glu	Glu	Trp	Ser	Gln	Asp	Leu	His	Ser	Ser	Gly	Arg
130	135	140													
Thr	Asp	Leu	Tyr	Ser	Tyr	Arg	Phe	Val	Cys	Asp	Glu	His	Tyr	Tyr	Gly
145	150	155	160												
Glu	Gly	Cys	Ser	Val	Phe	Cys	Arg	Pro	Arg	Asp	Asp	Phe	Gly	His	Phe
165	170	175													
Thr	Cys	Gly	Arg	Gly	Glu	Lys	Cys	Pro	Gly	Trp	Lys	Gly	Gln	Tyr	Cys
180	185	190													
Thr	Pro	Ile	Cys	Leu	Pro	Gly	Cys	Asp	Gln	His	Gly	Cys	Asp	Lys	Pro
195	200	205													
Gly	Glu	Cys	Lys	Cys	Arg	Val	Gly	Trp	Gln	Gly	Arg	Tyr	Cys	Asp	Glu
210	215	220													
Cys	Ile	Arg	Tyr	Pro	Gly	Cys	Val	His	Gly	Thr	Cys	Gln	Gln	Pro	Trp
225	230	235	240												
Gln	Cys	Asn	Cys	Gln	Glu	Gly	Trp	Gly	Gly	Leu	Phe	Cys	Asn	Gln	Asp
245	250	255													
Leu	Asn	Tyr	Cys	Thr	His	His	Lys	Pro	Cys	Asn	Gly	Ala	Thr	Cys	Thr
260	265	270													
Asn	Thr	Gly	Gln	Gly	Ser	Tyr	Thr	Cys	Ser	Cys	Arg	Pro	Gly	Tyr	Thr
275	280	285													
Gly	Cys	Glu	Glu	Cys	Pro	Cys	Lys	Asn	Gly	Ser	Cys	Thr	Asp	Leu	
290	295	300													
Glu	Ser	Ser	Cys	Thr	Cys	Pro	Pro	Gly	Phe	Tyr	Gly	Lys	Cys	Glu	Leu
305	310	315	320												
Ser	Ala	Met	Thr	Cys	Ala	Asp	Gly	Pro	Cys	Phe	Asn	Gly	Arg	Cys	
325	330	335													
Asp	Asn	Pro	Asp	Gly	Gly	Tyr	Cys	Cys	Pro	Leu	Gly	Ser	Gly	Phe	Asn
340	345	350													
Cys	Glu	Lys	Lys	Asp	Cys	Ser	Ser	Pro	Cys	Asn	Gly	Ala	Cys	Val	Asp
355	360	365													
Leu	Gly	Asn	Ser	Tyr	Cys	Cys	Gln	Ala	Gly	Phe	Gly	Arg	Cys	Asp	Asn
370	375	380													
Val	Asp	Asp	Cys	Ala	Ser	Pro	Cys	Asn	Gly	Gly	Thr	Cys	Asp	Val	Asn
385	390	395	400												
Asp	Ser	Cys	Thr	Cys	Pro	Pro	Gly	Tyr	Gly	Lys	Asn	Cys	Ser	Pro	Val
405	410	415													
Ser	Arg	Cys	Glu	His	Pro	Cys	His	Asn	Gly	Ala	Thr	Cys	His	Arg	Arg
420	425	430													
Tyr	Cys	Glu	Cys	Ala	Gly	Tyr	Gly	Asn	Cys	Gln	Phe	Leu	Leu	Pro	
435	440	445													
Glu	Pro	Pro	Gly	Pro	Val	Asp	Glu	Glu	Gln	Phe	Pro	Trp	Ala	Val	Cys
450	455	460													
Ala	Gly	Leu	Val	Leu	Leu	Leu	Gly	Cys	Ala	Ala	Val	Val	Cys	Val	
465	470	475	480												

Arg Leu Lys Gln Lys Pro Glu Cys Glu Thr Glu Met Asn Asn Leu
485 490 495
Ala Asn Cys Gln Arg Glu Lys Asp Ser Ser Ile Gly Ala Thr Gln Ile
500 505 510
Lys Asn Thr Asn Lys Lys Asp Phe His Asp Lys Lys Val Arg Tyr Pro
515 520 525
Val Asp Tyr Asn Leu Val Leu Lys Val His Lys Lys Cys Ser Glu Glu
530 535 540
Lys Ala Leu Arg Lys Arg Pro Ser Val Tyr Ser Thr Ser Lys Asp Thr
545 550 555 560
Lys Tyr Gln Ser Val Tyr Val Ser Glu Lys Asp Glu Cys Ile Ala Thr
565 570 575
Glu Val

<210> 14
<211> 525
<212> DNA
<213> Homo sapiens

<400> 14
tacgatgaay aacctggcga actgccagcg tgagaaggac atctcagtca gcatcatcgg 60
ggcyacgtca gatcargaac accaacaaga aggcggactt ymcascgggg gaccasagcg 120
tccgacaaga atggmttca aggcccgcta ccccaagcgtg gactataact cgtgcaggac 180
ctcaagggtg acgacaccgc cgtcaggacg tcgcacagca agcgtgacac caagtgccag 240
tccccaggct cctcaggggag gagaaggggg ccccgaccac actcaggggk tgcgtgctgc 300
ggccgggct caggaggggg tacctggggg gtgtttccct ggaaccactg ctccgtttct 360
cttcccaaat gttctcatgc attcattgtg gattttctct atttccctt tagtgagaa 420
gcatctgaaa gaaaaaggcc ggactcgggc tgttcaactt caaaagacac caagtaccag 480
tcggtgtacg tcatatccga ggagaaggac gagtgcgtca tcgca 525

<210> 15
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Predicted amino acid sequence of humna delta

<220>
<221> VARIANT
<222> 4
<223> Xaa = Any Amino Acid

<400> 15
Tyr Asp Glu Xaa Pro Gly Glu Leu Pro Ala
1 5 10

<210> 16
<211> 44
<212> PRT
<213> Artificial Sequence

<220>
<223> Predicted amino acid sequence of humna delta

<220>
<221> VARIANT
<222> 11, 15, 23, 24, 28

<223> Xaa = Any Amino Acid

<400> 16
Glu Gly His Leu Ser Gln His His Arg Gly Xaa Val Arg Ser Xaa Thr
1 5 10 15
Pro Thr Arg Arg Arg Thr Xaa Xaa Arg Gly Thr Xaa Ala Ser Asp Lys
20 25 30
Asn Gly Phe Gln Gly Pro Leu Pro Gln Arg Gly Leu
35 40

<210> 17

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Predicted amino acid sequence of humna delta

<220>

<221> VARIANT

<222> 41

<223> Xaa = Any Amino Acid

<400> 17

Leu Val Gln Asp Leu Lys Gly Asp Asp Thr Ala Val Arg Thr Ser His
1 5 10 15
Ser Lys Arg Asp Thr Lys Cys Gln Ser Pro Gly Ser Ser Gly Arg Arg
20 25 30
Arg Gly Pro Arg Pro His Ser Gly Xaa Ala Cys Cys Gly Pro Gly Ser
35 40 45
Gly Gly Gly Thr Trp Gly Val Ser Ser Trp His Cys Ser Val Ser Leu
50 55 60
Pro Lys Cys Ser His Ala Phe Ile Val Asp Phe Leu Tyr Phe Pro Phe
65 70 75 80
Ser Gly Glu Ala Ser Glu Arg Lys Arg Pro Asp Ser Gly Cys Ser Thr
85 90 95
Ser Lys Asp Thr Lys Tyr Gln Ser Val Tyr Val Ile Ser Glu Glu Lys
100 105 110
Asp Glu Cys Val Ile Ala
115

<210> 18

<211> 173

<212> PRT

<213> Artificial Sequence

<220>

<223> Predicted amino acid sequence of human delta

<220>

<221> VARIANT

<222> 34, 35, 39, 44, 96

<223> Xaa = Any Amino Acid

<400> 18

Thr Met Asn Asn Leu Ala Asn Cys Gln Arg Glu Lys Asp Ile Ser Val
1 5 10 15
Ser Ile Ile Gly Ala Thr Ser Asp Gln Glu His Gln Gln Glu Gly Gly

	20	25	30
Leu Xaa Xaa Gly Gly Pro Xaa Pro Thr Arg Met Xaa Phe Lys Ala Arg			
35	40	45	
Tyr Pro Ser Val Asp Tyr Asn Ser Cys Arg Thr Ser Arg Val Thr Thr			
50	55	60	
Pro Pro Ser Gly Arg Arg Thr Ala Ser Val Thr Pro Ser Ala Ser Pro			
65	70	75	80
Gln Ala Pro Gln Gly Gly Glu Gly Asp Pro Asp His Thr Gln Gly Xaa			
85	90	95	
Arg Ala Ala Gly Arg Ala Gln Glu Gly Val Pro Gly Gly Cys Leu Pro			
100	105	110	
Gly Thr Thr Ala Pro Phe Leu Phe Pro Asn Val Leu Met His Ser Leu			
115	120	125	
Trp Ile Phe Ser Ile Phe Leu Leu Val Glu Lys His Leu Lys Glu Lys			
130	135	140	
Gly Arg Thr Arg Ala Val Gln Leu Gln Lys Thr Pro Ser Thr Ser Arg			
145	150	155	160
Cys Thr Ser Tyr Pro Arg Arg Arg Thr Ser Ala Ser Ser			
165	170		

<210> 19

<211> 60

<212> PRT

<213> Artificial Sequence

<220>

<223> Predicted amino acid sequence of human delta

<220>

<221> VARIANT

<222> 1, 19, 23, 32, 33, 36, 43

<223> Xaa = Any Amino Acid

<400> 19

Xaa Thr Trp Arg Thr Ala Ser Val Arg Arg Thr Ser Gln Ser Ala Ser			
1	5	10	15
Ser Gly Xaa Arg Gln Ile Xaa Asn Thr Asn Lys Lys Ala Asp Phe Xaa			
20	25	30	
Xaa Gly Asp Xaa Ser Val Arg Gln Glu Trp Xaa Ser Arg Pro Ala Thr			
35	40	45	
Pro Ala Trp Thr Ile Thr Arg Ala Gly Pro Gln Gly			
50	55	60	

<210> 20

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Predicted amino acid sequence of human delta

<400> 20

Arg His Arg Arg Gln Asp Val Ala Gln Gln Ala			
1	5	10	

<210> 21

<211> 61

<212> PRT

<213> Artificial Sequence

<220>

<223> Predicted amino acid sequence of human delta

<400> 21

His	Gln	Val	Pro	Val	Pro	Arg	Leu	Leu	Arg	Glu	Glu	Lys	Gly	Thr	Pro
1					5				10					15	
Thr	Thr	Leu	Arg	Gly	Cys	Val	Leu	Arg	Ala	Gly	Leu	Arg	Arg	Gly	Tyr
					20				25					30	
Leu	Gly	Gly	Val	Phe	Leu	Glu	Pro	Leu	Leu	Arg	Phe	Ser	Ser	Gln	Met
					35				40					45	
Phe	Ser	Cys	Ile	His	Cys	Gly	Phe	Ser	Leu	Phe	Ser	Phe			
					50				55					60	

<210> 22

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Predicted amino acid sequence of human delta

<400> 22

Lys	Lys	Lys	Ala	Gly	Leu	Gly	Leu	Phe	Asn	Phe	Lys	Lys	Arg	His	Gln
1				5					10					15	
Val	Pro	Val	Gly	Val	Arg	His	Ile	Arg	Gly	Glu	Gly	Arg	Val	Arg	His
					20				25					30	

Arg

<210> 23

<211> 175

<212> PRT

<213> Artificial Sequence

<220>

<223> Predicted amino acid sequence of human delta

<220>

<221> VARIANT

<222> 25, 34, 35, 38, 97

<223> Xaa = Any Amino Acid

<400> 23

Thr	Met	Asn	Asn	Leu	Ala	Asn	Cys	Gln	Arg	Glu	Lys	Asp	Ile	Ser	Val
1				5					10					15	
Ser	Ile	Ile	Gly	Ala	Thr	Gly	Ile	Xaa	Asn	Thr	Asn	Lys	Lys	Ala	Asp
							20		25					30	
Phe	Xaa	Xaa	Gly	Asp	Xaa	Ser	Ser	Asp	Lys	Asn	Gly	Phe	Gln	Lys	Ala
						35		40						45	
Arg	Tyr	Pro	Ser	Val	Asp	Tyr	Asn	Leu	Val	Gln	Asp	Leu	Lys	Gly	Asp
					50			55						60	
Asp	Thr	Ala	Val	Arg	Thr	Ser	His	Ser	Lys	Arg	Asp	Thr	Lys	Cys	Gln
							65		70					80	
Ser	Pro	Gly	Ser	Ser	Gly	Arg	Arg	Arg	Gly	Pro	Arg	Pro	His	Ser	Gly
						85			90					95	
Xaa	Ala	Cys	Cys	Gly	Pro	Gly	Ser	Gly	Gly	Gly	Thr	Trp	Gly	Val	Ser
					100				105					110	

Ser	Trp	Asn	His	Cys	Ser	Val	Ser	Leu	Pro	Lys	Cys	Ser	His	Ala	Phe
115							120					125			
Ile	Val	Asp	Phe	Leu	Tyr	Phe	Pro	Phe	Ser	Gly	Glu	Ala	Ser	Glu	Arg
130						135					140				
Lys	Arg	Pro	Asp	Ser	Gly	Cys	Ser	Thr	Ser	Lys	Asp	Thr	Lys	Tyr	Gln
145						150				155				160	
Ser	Val	Tyr	Val	Ile	Ser	Glu	Glu	Lys	Asp	Glu	Cys	Val	Ile	Ala	
						165			170			175			

<210> 24

<211> 2899

<212> DNA

<213> Artificial Sequence

<220>

<223> Consenses sequence of mouse delta and human delta

<220>

<221> misc_feature

<222> 854, 973, 984, 1582, 1787, 1819, 1864, 1916, 1951, 2033,
2152, 2156, 2171, 2183, 2194, 2212, 2220, 2226, 2230, 2244,
2245, 2264, 2265, 2266, 2287

<223> n = A,T,C or G

<400> 24

gtccagcggt accatgggcc gtcggagcgc gctaccctt gccgtggct ctgcccgtct 60
 gtgccagggtc tggagctccg gcgtatttga gctgaagctg caggagttcg tcaacaagaa 120
 ggggctgctg gggAACCGCA actgctgccg cgggggctct ggccccctt gcccctgcacg 180
 gaccccttctt cgctatgcc tcaaccacta ccaggccagc gtgtcaccgg agccaccctg 240
 cacctacggc agtgctgtca cgccagtgtct gggctcgac tccttcagcc tgccctsatkg 300
 sgyasgsryc smccycgagg yckwcrgyaw csmyaagyyy gatatcgmmmy tycggcttca 360
 cctggccrsgg yaccttctct ctgatyattg aagcyctcca yacagaytct ccygatgacc 420
 tcgcaacaga aaaccagaa agactcatca gcccctgrc cacycagagg cacctsackg 480
 tgggmarga rtggctcycag gacctkcaca gyagcggccg cacrgacctc mrgtactcyt 540
 accgsttygt gtgtgacgar cactactacg gagarggytg ctctgtkttc tgccgwccyc 600
 gggaygaygc ctttyggccac ttcacctgyg gggasmgwgg ggagaarrtg tgraccctg 660
 gctggaaagg scmgtaactgc acwgascra tctgyctgcc wggrrtgat gascarcatg 720
 gatwytgtga caaaccaggg gartgcaagt gcagagtkgg ctggcaggcc cgstactgyg 780
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 ataagccstg cargoaatggc gcccacactgca acmaaacacgg gccaggggga gctacacwtg 960
 ktcyttggcc ggncykgggt ayanagggtg ccamctgyga agcttgggra ktrgraygagt 1020
 tggtgmyccy agcccytggy aagaacggag sgagctksac ggaycttcgg agracagctw 1080
 ctctgyacc tgcccwccc gcttctaygg caarrtctgt garytgagyg ccatgacctg 1140
 tgcrayggc cttgtcttya ayggrrggwc rtgytcagay arcccygayg gaggstacas 1200
 ctggccrytgc cccktgggt wctcyggctt caactgttag aagaaratkg ayywctgcrg 1260
 ctcttemccy tggtaaayg gtgccaagtg tgtggacctc ggyraykcyt acctgtgccc 1320
 stgcccagcgg ggcttctcsg ggaggyactg ygasgacaay gtggaygact gygcctccctc 1380
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 roctggctac acgggcarga actgcagygccc cccyggcagc aggtgygagc aycacccctg 1500
 ccayaatggg gccacactgca acsagagggg ccascgctay wtgtgygagt gygcrrrrg 1560
 ctayggsggy cccaaactgca anttyctgt cccygaarcy gmccmccmrg scccayggtg 1620
 gtggamctc msykararrm aymtaragr gcccgggssg gcccwtcccc tkggtggyyc 1680
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 gggnyacsca catcaagaac accaacaaga aggccgactt ycacgggac cayrngngccr 1920
 asaagaryrg cttyaaggyc cgmtaccmr nkgtggacta taacctcgdk crrgacactca 1980
 agggwgyaga mrccrcsgtc agggayrcrc acagcaarcg tgacaccaag tgnccagycmc 2040
 agrgctcykg aggrgargag aaggggaysc cccgaccmaca ctyagggggt ggaggaagmw 2100

tcytgamaga aaaaggccrg astyygggyy trytcwactt tcaaargaca ancmangtac 2160
magtcggtgt nygtymtkc ygnagrappa aggnigtastg ygtiyataggm rnytgaggtn 2220
gtaarntggm agcgatgtgg caannttccc atttctcksa aaknnnnattc cmmggatata 2280
gcycggntga atgctkctga gagaggaagg gagaggaaac ccagggactg ytkytcagaa 2340
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gggtctatgt gactatattt ttttgatata aatgtattt atgaaatattt gtgcaaatgt 2820
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ataaatataa tgaactaca 2899

<210> 25

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> sequence encoded by SEQ ID NO. 93 (degenerated
oligo)

<400> 25

Glu Lys Asp Glu Cys Val Ile Ala

1 5

<210> 26

<211> 1981

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> 559, 678, 689, 1287, 1492, 1524, 1569, 1621, 1656, 1738,
1857, 1861, 1876, 1888, 1899, 1917, 1925, 1931, 1935, 1942,
1943, 1952, 1953, 1954, 1968

<223> n = A,T,C or G

<400> 26

cattgggtac gggccccct cgaggtcgac ggtatcgata agcttgatata cgaattccgg 60
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tgacctcgca acagaaaacc cagaaagact catcagccgc ctggccaccc agaggcacct 180
gacgggtggc gaggagtggt cccaggaccc gcacagcagc ggccgcacgg acctcaagta 240
ctcttaccgc ttctgtgtg acgaacacta ctacggagag ggctgtccg ttttctgccc 300
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ccctggctgg aaaggccct actgcacaga gccatctgc ctgcctggat gtgtatgagca 420
gcatggatt tttgtacaaac cagggaaatg caagtgcaga gtgggctggc agggccggta 480
ctgtgacgag ttttatccgct atccaggctg tctccatggc acctgcacgc agccctggca 540
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tcctccccgt gcgccaacgg gggcacctgc cggatggcg tgaacgactt ctccctgcacc 1140
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gacggagacc atgaacaacc tggnaactg ccagcgtgag aaggacatct cagttagcat 1560
catcggggncc acgcagatca agaacaccaa caagaaggcg gacttccacg gggaccacag 1620
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cctcaagggt gacgacaccg ccgtcaggga cgcgcacagc aagcgtgaca ccaagtgnca 1740
gccccagggc tcctcagggg aggagaaggg gaccccccac ccacactcag ggggtggagg 1800
aagcatctt aaaaag gccggacttc gggcttgg 1920
ngtacaagtc ggtgtcgtc atttccgnag gaggaaggt gactgogtca taggaantt 1980
aggtngtaaa ntggnagttt annttgaaa gnnntcccg gattccgntt tcaaagttt 1981
t

<210> 27

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 27

His Trp Val Arg Ala Pro Leu Glu Val Asp Gly Ile Asp Lys Leu Asp

1

5

10

15

Ile Glu Phe Arg Leu His Leu Ala Gly His Leu Leu Ser Asp Tyr

20

25

30

<210> 28

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 28

Ser Ser Pro His Arg Phe Ser

1

5

<210> 29

<211> 45

<212> PRT

<213> Artificial Sequence

<220>

<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 29

Pro Arg Asn Arg Lys Pro Arg Lys Thr His Gln Pro Pro Gly His Pro

1

5

10

15

Glu Ala Pro Asp Gly Gly Arg Gly Val Val Pro Gly Pro Ala Gln Gln

20

25

30

Arg Pro His Gly Pro Gln Val Leu Leu Pro Leu Arg Val
35 40 45

<210> 30
<211> 49
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 30
Arg Thr Leu Leu Arg Arg Gly Leu Leu Arg Phe Pro Ser Pro Gly Arg
1 5 10 15
Cys Leu Arg Pro Leu His Leu Trp Gly Ala Trp Gly Glu Ser Val Gln
20 25 30
Pro Trp Leu Glu Arg Ala Leu Leu His Arg Ala Asp Leu Pro Ala Trp
35 40 45

Met

<210> 31
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 31
Ala Ala Trp Ile Leu
1 5

<210> 32
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 32
Gln Thr Arg Gly Met Gln Val Gln Ser Gly Leu Ala Gly Pro Val Leu
1 5 10 15

<210> 33
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<220>
 <221> VARIANT
 <222> 25
 <223> Xaa = Any Amino Acid

<400> 33
 Arg Val Tyr Pro Leu Ser Arg Leu Ser Pro Trp His Leu Pro Ala Ala
 1 5 10 15
 Leu Ala Val Gln Leu Pro Gly Arg Xaa Gly Gly Pro Phe Leu Gln Pro
 20 25 30
 Gly Pro Glu Leu Leu His Thr Pro
 35 40

<210> 34
 <211> 45
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Deduced amino acid sequence using the three
 possible ORF of human Delta contigs

<220>
 <221> VARIANT
 <222> 27
 <223> Xaa = Any Amino Acid

<400> 34
 Ala Leu Gln Glu Trp Ser His Leu Gln Gln Thr Arg Ala Arg Gly Ser
 1 5 10 15
 Tyr Thr Trp Ser Leu Ala Gly Leu Gly Tyr Xaa Gly Cys His Leu Arg
 20 25 30
 Ser Leu Gly Ile Gly Arg Val Val Asp Pro Ser Pro Trp
 35 40 45

<210> 35
 <211> 196
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Deduced amino acid sequence using the three
 possible ORF of human Delta contigs

<220>
 <221> VARIANT
 <222> 166, 179
 <223> Xaa = Any Amino Acid

<400> 35
 Glu Arg Arg Glu Leu Asp Gly Ser Ser Glu Asn Ser Tyr Ser Cys Thr
 1 5 10 15
 Cys Pro Pro Gly Phe Tyr Gly Lys Ile Cys Glu Leu Ser Ala Met Thr
 20 25 30
 Cys Ala Asp Gly Pro Cys Phe Asn Gly Gly Arg Cys Ser Asp Pro Asp
 35 40 45
 Gly Gly Tyr Ser Cys Arg Cys Pro Val Gly Tyr Ser Gly Phe Asn Cys
 50 55 60
 Glu Lys Lys Ile Asp Tyr Cys Ser Ser Ser Pro Cys Ser Asn Gly Ala

65	70	75	80
Lys Cys Val Asp Leu Gly Asp Ala Tyr	Leu Cys Arg Gly Gln Ala Gly		
85	90	95	
Phe Ser Gly Arg His Cys Asp Asp Asn Val Asp Asp Cys Ala Ser Ser			
100	105	110	
Pro Cys Ala Asn Gly Gly Thr Cys Arg Asp Gly Val Asn Asp Phe Ser			
115	120	125	
Cys Thr Cys Pro Pro Gly Tyr Thr Gly Arg Asn Cys Ser Ala Pro Ala			
130	135	140	
Ser Arg Cys Glu His Ala Pro Cys His Asn Gly Ala Thr Cys His Glu			
145	150	155	160
Arg Gly His Arg Tyr Xaa Cys Glu Cys Ala Arg Ser Tyr Gly Gly Pro			
165	170	175	
Asn Cys Xaa Phe Leu Leu Pro Glu Thr Ala Pro Pro Ala Pro Arg Trp			
180	185	190	
Trp Lys Leu Pro			
195			

<210> 36
<211> 65
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<220>
<221> VARIANT
<222> 51
<223> Xaa = Any Amino Acid

<400> 36
Lys Asn Leu Lys Gly Pro Gly Gly Ala His Pro Leu Gly Gly Arg Val
1 5 10 15
Arg Arg Gly His Pro Cys Pro His Ala Ala Ala Gly Leu Cys Arg Cys
20 25 30
Gly Gly Leu Arg Pro Ala Glu Ala Ala Glu Ala Pro Ala Pro Ser Arg
35 40 45
Pro Leu Xaa Gly Gly Asp Gly Asp His Glu Gln Pro Gly Gln Leu Pro
50 55 60
Ala
65

<210> 37
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<220>
<221> VARIANT
<222> 28, 39
<223> Xaa = Any Amino Acid

<400> 37

Glu Gly His Leu Ser Gln His His Arg Gly His Ala Asp Gln Glu His
1 5 10 15
Gln Gln Glu Gly Gly Leu Pro Arg Gly Pro Gln Xaa Arg Gln Glu Trp
20 25 30
Leu Gln Gly Pro Leu Pro Xaa Gly Gly Leu
35 40

<210> 38
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 38
Pro Arg Ala Gly Pro Gln Gly
1 5

<210> 39
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 39
Arg His Arg Arg Gln Gly Arg Ala Gln Gln Ala
1 5 10

<210> 40
<211> 57
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<220>
<221> VARIANT
<222> 4, 43, 45, 50, 54
<223> Xaa = Any Amino Acid

<400> 40
His Gln Val Xaa Ala Pro Gly Leu Leu Arg Gly Gly Glu Gly Asp Pro
1 5 10 15
Arg Pro Thr Leu Arg Gly Trp Arg Lys His Leu Glu Arg Lys Arg Pro
20 25 30
Asp Phe Gly Leu Val Gln Leu Ser Lys Asp Xaa Gln Xaa Thr Ser Arg
35 40 45
Cys Xaa Ser Phe Pro Xaa Glu Glu Gly
50 55

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<210> 41
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
      possible ORF of human Delta contigs

<220>
<221> VARIANT
<222> 5, 8
<223> Xaa = Any Amino Acid

<400> 41
Leu Arg His Arg Xaa Leu Arg Xaa
  1           5

<210> 42
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
      possible ORF of human Delta contigs

<220>
<221> VARIANT
<222> 1, 4, 5
<223> Xaa = Any Amino Acid

<400> 42
Xaa Trp Lys Xaa Xaa Pro Gly Phe Arg Phe Gln Ser Phe
  1           5           10

<210> 43
<211> 276
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
      possible ORF of human Delta contigs

<220>
<221> VARIANT

<222> 226, 230
<223> Xaa = Any Amino Acid

<400> 43
Ile Gly Tyr Gly Pro Pro Ser Arg Ser Thr Val Ser Ile Ser Leu Ile
  1           5           10           15
Ser Asn Ser Gly Phe Thr Trp Pro Gly Thr Phe Ser Leu Ile Ile Glu
  20          25          30
Ala Leu His Thr Asp Ser Pro Asp Asp Leu Ala Thr Glu Asn Pro Glu
  35          40          45

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Arg Leu Ile Ser Arg Leu Ala Thr Gln Arg His Leu Thr Val Gly Glu
 50 55 60
 Glu Trp Ser Gln Asp Leu His Ser Ser Gly Arg Thr Asp Leu Lys Tyr
 65 70 75 80
 Ser Tyr Arg Phe Val Cys Asp Glu His Tyr Tyr Gly Glu Gly Cys Ser
 85 90 95
 Val Phe Cys Arg Pro Arg Asp Asp Ala Phe Gly His Phe Thr Cys Gly
 100 105 110
 Glu Arg Gly Glu Lys Val Cys Asn Pro Gly Trp Lys Gly Pro Tyr Cys
 115 120 125
 Thr Glu Pro Ile Cys Leu Pro Gly Cys Asp Glu Gln His Gly Phe Cys
 130 135 140
 Asp Lys Pro Gly Glu Cys Lys Cys Arg Val Gly Trp Gln Gly Arg Tyr
 145 150 155 160
 Cys Asp Glu Cys Ile Arg Tyr Pro Gly Cys Leu His Gly Thr Cys Gln
 165 170 175
 Gln Pro Trp Gln Cys Asn Cys Gln Glu Gly Trp Gly Gly Leu Phe Cys
 180 185 190
 Asn Gln Asp Leu Asn Tyr Cys Thr His His Lys Pro Cys Lys Asn Gly
 195 200 205
 Ala Thr Cys Asn Lys His Gly Pro Gly Gly Ala Thr Leu Gly Leu Trp
 210 215 220
 Pro Xaa Trp Gly Thr Xaa Gly Ala Thr Cys Glu Ala Trp Gly Leu Asp
 225 230 235 240
 Glu Leu Leu Thr Pro Ala Leu Gly Lys Asn Gly Gly Ser Leu Thr Asp
 245 250 255
 Leu Arg Arg Thr Ala Thr Pro Val Pro Ala His Pro Ala Ser Thr Ala
 260 265 270
 Lys Ser Val Asn
 275

<210> 44
 <211> 93
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Deduced amino acid sequence using the three
 possible ORF of human Delta contigs

<400> 44
 Pro Val Arg Thr Ala Leu Ala Leu Thr Gly Val Gly Ala Gln Thr Ala
 1 5 10 15
 Pro Met Glu Gly Thr Ala Ala Ala Ala Pro Trp Ala Thr Pro Ala Ser
 20 25 30
 Thr Val Arg Arg Lys Leu Thr Thr Ala Ala Leu His Pro Val Leu Met
 35 40 45
 Val Pro Ser Val Trp Thr Ser Val Met Pro Thr Cys Ala Ala Ala Arg
 50 55 60
 Pro Ala Ser Arg Gly Gly Thr Val Thr Thr Trp Thr Thr Ala Pro
 65 70 75 80
 Pro Pro Arg Ala Pro Thr Gly Ala Pro Ala Gly Met Ala
 85 90

<210> 45
 <211> 74
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<220>

<221> VARIANT

<222> 55

<223> Xaa = Any Amino Acid

<400> 45

Thr Thr Ser Pro Ala Pro Ala Arg Leu Ala Thr Arg Ala Gly Thr Ala
1 5 10 15
Val Pro Pro Pro Ala Gly Ala Ser Thr His Pro Ala Thr Met Gly Pro
20 25 30
Pro Ala Thr Arg Gly Ala Thr Ala Ile Cys Ala Ser Val Pro Glu Ala
35 40 45
Thr Gly Val Pro Thr Ala Xaa Ser Cys Pro Lys Leu Pro Pro Arg Pro
50 55 60
His Gly Gly Gly Asn Ser Pro Lys Lys Thr
65 70

<210> 46

<211> 187

<212> PRT

<213> Artificial Sequence

<220>

<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<220>

<221> VARIANT

<222> 47, 58, 73, 101, 128, 167, 168, 181, 187

<223> Xaa = Any Amino Acid

<400> 46

Lys Gly Arg Gly Gly Pro Ile Pro Leu Val Asp Val Cys Ala Gly Val
1 5 10 15
Ile Leu Val Leu Met Leu Leu Gly Cys Ala Ala Val Val Val Cys
20 25 30
Val Arg Leu Arg Leu Gln Lys His Arg Pro Pro Ala Asp Pro Xaa Arg
35 40 45
Gly Glu Thr Glu Thr Met Asn Asn Leu Xaa Asn Cys Gln Arg Glu Lys
50 55 60
Asp Ile Ser Val Ser Ile Ile Gly Xaa Thr Gln Ile Lys Asn Thr Asn
65 70 75 80
Lys Lys Ala Asp Phe His Gly Asp His Ala Asp Lys Asn Gly Phe Lys
85 90 95
Ala Arg Tyr Pro Xaa Val Asp Tyr Asn Leu Val Gln Asp Leu Lys Gly
100 105 110
Asp Asp Thr Ala Val Arg Asp Ala His Ser Lys Arg Asp Thr Lys Xaa
115 120 125
Gln Pro Gln Gly Ser Ser Gly Glu Glu Gly Thr Pro Asp Pro His Ser
130 135 140
Gly Gly Gly Ser Ile Leu Lys Glu Lys Gly Arg Thr Ser Gly Leu
145 150 155 160
Phe Asn Phe Gln Lys Thr Xaa Xaa Val Gln Val Gly Val Arg His Phe
165 170 175
Arg Arg Arg Lys Xaa Asp Cys Val Ile Gly Xaa

180

185

<210> 47
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three possible ORF of human Delta contigs

<220>
<221> VARIANT
<222> 2, 4, 5, 7, 8, 11, 16
<223> Xaa = Any Amino Acid

<400> 47
Gly Xaa Lys Xaa Xaa Val Xaa Xaa Gly Lys Xaa Ser Pro Asp Ser Xaa
1 5 10 15
Phe Lys Val Phe
20

<210> 48
<211> 12
<212> PRT

<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three possible ORF of human Delta contigs

<400> 48
Leu Gly Thr Gly Pro Pro Arg Gly Arg Arg Tyr Arg
1 5 10

<210> 49

<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three possible ORF of human Delta contigs

<400> 49
Tyr Arg Ile Pro Ala Ser Pro Gly Arg Ala Pro Ser Leu
1 5 10

<210> 50
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three

possible ORF of human Delta contigs

<400> 50
Leu Leu Lys Leu Ser Thr Gln Ile Leu Leu Met Thr Ser Gln Gln Lys
1 5 10 15
Thr Gln Lys Asp Ser Ser Ala Ala Trp Pro Pro Arg Gly Thr
20 25 30

<210> 51

<211> 135

<212> PRT

<213> Artificial Sequence

<220>

<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<220>

<221> VARIANT

<222> 126

<223> Xaa = Any Amino Acid

<400> 51

Arg Trp Ala Arg Ser Gly Pro Arg Thr Cys Thr Ala Ala Ala Ala Arg
1 5 10 15
Thr Ser Ser Thr Pro Thr Ala Ser Cys Val Thr Asn Thr Thr Glu
20 25 30
Arg Ala Ala Pro Phe Ser Ala Val Pro Gly Thr Met Pro Ser Ala Thr
35 40 45
Ser Pro Val Cys Ser Val Gly Arg Lys Cys Ala Thr Leu Ala Gly Lys
50 55 60
Gly Pro Thr Ala Gln Ser Arg Ser Ala Cys Leu Asp Val Met Ser Ser
65 70 75 80
Met Asp Phe Phe Val Thr Asn Gln Asn Ala Ser Ala Glu Trp Ala Gly
85 90 95
Arg Ala Gly Thr Val Thr Ser Val Ser Ala Ile Gln Ala Val Ser Met
100 105 110
Ala Pro Ala Ser Ser Pro Gly Ser Ala Thr Ala Arg Lys Xaa Gly Gly
115 120 125
Ala Phe Ser Ala Thr Arg Thr
130 135

<210> 52

<211> 46

<212> PRT

<213> Artificial Sequence

<220>

<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<220>

<221> VARIANT

<222> 30, 33

<223> Xaa = Any Amino Acid

<400> 52

Thr Thr Ala His Thr Ile Ser Pro Ala Arg Met Glu Pro Pro Ala Thr

1 5 10 15
Asn Thr Gly Gln Gly Glu Leu His Leu Val Phe Gly Arg Xaa Gly Val
20 25 30
Xaa Arg Val Pro Pro Ala Lys Leu Gly Asp Trp Thr Ser Cys
35 40 45

<210> 53
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 53
Pro Gln Pro Leu Val Arg Thr Glu Gln Glu
1 5 10

<210> 54
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 54
Arg Ile Phe Gly Glu Gln Leu Leu Tyr Leu Pro Thr Arg Leu Leu
1 5 10 15
Arg Gln Asn Leu
20

<210> 55
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 55
Ile Glu Cys His Asp Leu Cys Gly Arg Pro Leu Leu
1 5 10

<210> 56
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 56

Arg Gly Ser Val Leu Arg Gln Pro Arg Trp Arg Val Gln Leu Pro Leu
1 5 10 15
Pro Arg Gly Leu Leu Arg Leu Gln Leu
20 25

<210> 57
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 57
Leu Leu Gln Leu Phe Thr Leu Phe
1 5

<210> 58
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 58
Trp Cys Gln Val Cys Gly Pro Arg
1 5

<210> 59
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<400> 59
Cys Leu Pro Val Pro Leu Pro Gly Arg Leu Leu Gly Glu Ala Leu
1 5 10 15

<210> 60
<211> 131
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<220>
<221> VARIANT
<222> 76
<223> Xaa = Any Amino Acid

<400> 60
Arg Gln Arg Gly Arg Leu Arg Leu Leu Pro Val Arg Gln Gly His Leu
1 5 10 15
Pro Gly Trp Arg Glu Arg Leu Leu Leu His Leu Pro Ala Trp Leu His
20 25 30
Gly Gln Glu Leu Gln Cys Pro Arg Gln Gln Val Arg Ala Arg Thr Leu
35 40 45
Pro Gln Trp Gly His Leu Pro Arg Glu Gly Pro Pro Leu Phe Val Arg
50 55 60
Val Cys Pro Lys Leu Arg Gly Ser Gln Leu Pro Xaa Pro Ala Pro Arg
65 70 75 80
Asn Cys Pro Pro Gly Pro Thr Val Val Glu Thr Pro Leu Lys Lys Pro
85 90 95
Lys Arg Ala Gly Gly Pro Ser Pro Trp Trp Thr Cys Ala Pro Gly
100 105 110
Ser Ser Leu Ser Ser Cys Cys Cys Trp Ala Val Pro Leu Trp Trp Ser
115 120 125
Ala Ser Gly
130

<210> 61
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<220>
<221> VARIANT
<222> 12
<223> Xaa = Any Amino Acid

<400> 61
Gly Cys Arg Ser Thr Gly Pro Gln Pro Thr Pro Xaa Gly Gly Arg Arg
1 5 10 15
Arg Pro

<210> 62
<211> 98
<212> PRT
<213> Artificial Sequence

<220>
<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<220>
<221> VARIANT
<222> 4, 19, 36, 48, 75
<223> Xaa = Any Amino Acid

<400> 62
Thr Thr Trp Xaa Thr Ala Ser Val Arg Arg Thr Ser Gln Ser Ala Ser
1 5 10 15
Ser Gly Xaa Arg Arg Ser Arg Thr Pro Thr Arg Arg Arg Thr Ser Thr

20	25	30
Gly Thr Thr Xaa Pro Thr Arg Met Ala Ser Arg Pro Ala Thr Gln Xaa		
35	40	45
Trp Thr Ile Thr Ser Cys Arg Thr Ser Arg Val Thr Thr Pro Pro Ser		
50	55	60
Gly Thr Arg Thr Ala Ser Val Thr Pro Ser Xaa Ser Pro Arg Ala Pro		
65	70	75
Gln Gly Arg Arg Arg Cys Pro Pro Thr His Thr Gln Gly Val Glu Glu		
85	90	95
Ala Ser		

<210> 63

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<220>

<221> VARIANT

<222> 16, 17, 22, 26, 30

<223> Xaa = Any Amino Acid

<400> 63

Lys Lys Lys Ala Gly Leu Arg Ala Cys Ser Thr Phe Lys Arg Gln Xaa			
1	5	10	15
Xaa Tyr Lys Ser Val Xaa Val Ile Ser Xaa Gly Gly Arg Xaa Thr Ala			
20	25	30	

Ser

<210> 64

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Deduced amino acid sequence using the three
possible ORF of human Delta contigs

<220>

<221> VARIANT

<222> 2, 6, 8, 10, 13, 14, 19

<223> Xaa = Any Amino Acid

<400> 64

Glu Xaa Glu Val Val Xaa Trp Xaa Leu Xaa Leu Glu Xaa Xaa Pro Arg			
1	5	10	15
Ile Pro Xaa Ser Lys Phe			
20			

<210> 65

<211> 192

<212> PRT

<213> Artificial Sequence

<220>
<223> Composite human delta (H-Delta-1) amino acid sequence

<400> 65
Gly Phe Thr Trp Pro Gly Thr Phe Ser Leu Ile Ile Glu Ala Leu His
1 5 10 15
Thr Asp Ser Pro Asp Asp Leu Ala Thr Glu Asn Pro Glu Arg Leu Ile
20 25 30
Ser Arg Leu Ala Thr Gln Arg His Leu Thr Val Gly Glu Glu Trp Ser
35 40 45
Gln Asp Leu His Ser Ser Gly Arg Thr Asp Leu Lys Tyr Ser Tyr Arg
50 55 60
Phe Val Cys Asp Glu His Tyr Tyr Gly Glu Gly Cys Ser Val Phe Cys
65 70 75 80
Arg Pro Arg Asp Asp Ala Phe Gly His Phe Thr Cys Gly Glu Arg Gly
85 90 95
Glu Lys Val Cys Asn Pro Gly Trp Lys Gly Pro Tyr Cys Thr Glu Pro
100 105 110
Ile Cys Leu Pro Gly Cys Asp Glu Gln His Gly Phe Cys Asp Lys Pro
115 120 125
Gly Glu Cys Lys Cys Arg Val Gly Trp Gln Gly Arg Tyr Cys Asp Glu
130 135 140
Cys Ile Arg Tyr Pro Gly Cys Leu His Gly Thr Cys Gln Gln Pro Trp
145 150 155 160
Gln Cys Asn Cys Gln Glu Gly Trp Gly Gly Leu Phe Cys Asn Gln Asp
165 170 175
Leu Asn Tyr Cys Thr His His Lys Pro Cys Lys Asn Gly Ala Thr Cys
180 185 190

<210> 66
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Composite human delta (H-Delta-1) amino acid sequence

<400> 66
Thr Asn Thr Gly Gln Gly
1 5

<210> 67
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Composite human delta (H-Delta-1) amino acid sequence

<400> 67
Lys Asn Gly Gly Ser Leu Thr Asp Leu
1 5

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<210> 68
<211> 157
<212> PRT
<213> Artificial Sequence

<220>
<223> Composite human delta (H-Delta-1) amino acid
      sequence

<400> 68
Glu Asn Ser Tyr Ser Cys Thr Cys Pro Pro Gly Phe Tyr Gly Lys Ile
   1           5          10          15
Cys Glu Leu Ser Ala Met Thr Cys Ala Asp Gly Pro Cys Phe Asn Gly
   20          25          30
Gly Arg Cys Ser Asp Ser Pro Asp Gly Gly Tyr Ser Cys Arg Cys Pro
   35          40          45
Val Gly Tyr Ser Gly Phe Asn Cys Glu Lys Lys Ile Asp Tyr Cys Ser
   50          55          60
Ser Ser Pro Cys Ser Asn Gly Ala Lys Cys Val Asp Leu Gly Asp Ala
   65          70          75          80
Tyr Leu Cys Arg Cys Gln Ala Gly Phe Ser Gly Arg His Cys Asp Asp
   85          90          95
Asn Val Asp Asp Cys Ala Ser Ser Pro Cys Ala Asn Gly Gly Thr Cys
  100         105         110
Arg Asp Gly Val Asn Asp Phe Ser Cys Thr Cys Pro Pro Gly Tyr Thr
  115         120         125
Gly Arg Asn Cys Ser Ala Pro Ala Ser Arg Cys Glu His Ala Pro Cys
  130         135         140
His Asn Gly Ala Thr Cys His Glu Arg Gly His Arg Tyr
  145         150         155

<210> 69
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Composite human delta (H-Delta-1) amino acid
      sequence

<400> 69
Cys Glu Cys Ala Arg Ser Tyr Gly Gly Pro Asn Cys
   1           5          10

<210> 70
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Composite human delta (H-Delta-1) amino acid
      sequence

<400> 70
Phe Leu Leu Pro Glu
   1           5

<210> 71

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<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Composite human delta (H-Delta-1) amino acid sequence

<400> 71
Pro Pro Gly Pro
1

<210> 72
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Composite human delta (H-Delta-1) amino acid sequence

<400> 72
Leu Leu Leu Gly Cys Ala Ala Val Val Val Cys Val Arg Leu Arg Leu
1 5 10 15
Gln Lys His Arg Pro Pro Ala Asp Pro
20 25

<210> 73
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Composite human delta (H-Delta-1) amino acid sequence

<400> 73
Arg Gly Glu Thr Glu Thr Met Asn Asn Leu
1 5 10

<210> 74
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Composite human delta (H-Delta-1) amino acid sequence

<400> 74
Asn Cys Gln Arg Glu Lys Asp Ile Ser Val Ser Ile Ile Gly
1 5 10

<210> 75
<211> 16
<212> PRT

<213> Artificial Sequence

<220>

<223> Composite human delta (H-Delta-1) amino acid sequence

<400> 75

Thr Gln Ile Lys Asn Thr Asn Lys Lys Ala Asp Phe His Gly Asp His
1 5 10 15

<210> 76

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Composite human delta (H-Delta-1) amino acid sequence

<400> 76

Ala Asp Lys Asn Gly Phe Lys Ala Arg Tyr Pro
1 5 10

<210> 77

<211> 26

<212> PRT

<213> Artificial Sequence

<220>

<223> Composite human delta (H-Delta-1) amino acid sequence

<400> 77

Val Asp Tyr Asn Leu Val Gln Asp Leu Lys Gly Asp Asp Thr Ala Val
1 5 10 15
Arg Asp Ala His Ser Lys Arg Asp Thr Lys
20 25

<210> 78

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Composite human delta (H-Delta-1) amino acid sequence

<400> 78

Gln Pro Gln Gly Ser Ser Gly Glu Glu Lys Gly Thr Pro
1 5 10

<210> 79

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Composite human delta (H-Delta-1) amino acid sequence

<400> 79
Pro Thr Leu Arg
1

<210> 80
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Composite human delta (H-Delta-1) amino acid sequence

<400> 80
Arg Lys Arg Pro
1

<210> 81
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Degenerated oligo as primer

<220>
<221> VARIANT
<222> 6, 12, 18, 21
<223> n = I (Inosine)

<400> 81
ttcggnttya cntggccnngg nac

23

<210> 82
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Degenerated oligo as primer

<220>
<221> VARIANT
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<223> n = I (Inosine)

<400> 82
tcnatgcang tnccnccrtt

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<210> 83
<211> 8
<212> PRT
<213> Drosophila

<400> 83
Phe Gly Phe Thr Trp Pro Gly Thr

<210> 84
<211> 7
<212> PRT
<213> Drosophila

<400> 84
Asn Gly Gly Thr Cys Ile Asp
1 5

<210> 85
<211> 12
<212> PRT
<213> Drosophila

<400> 85
Ser Ile Pro Pro Gly Ser Arg Thr Ser Leu Gly Val
1 5 10

<210> 86
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer 1 for PCR

<220>
<221> VARIANT
<222> 3, 9, 15, 18, 21
<223> n = I (Inosine)

<400> 86
ggnttcacnt ggccnggnac ntt

23

<210> 87
<211> 23
<212> DNA
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<220>
<223> Primer 2 for PCR

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<400> 87
gttccncrcrt tyttrcangg rtt

23

<210> 88
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<212> PRT
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<220>

<223> EGF-like repeats encoded by SEQ ID NO. 87

<400> 88
Asn Pro Cys Lys Asn Gly Gly Thr
1 5

<210> 89
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<212> DNA
<213> Artificial Sequence

<220>
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<220>
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<223> n = I (Inosine)

<400> 89 23
acnatgaaya ayctngcnaa ytg

<210> 90
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<220>
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<400> 90
Thr Met Asn Asn Leu Ala Asn Cys
1 5

<210> 91
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
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<220>
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<222> 6, 9, 21
<223> n = I (Inosine)

<400> 91 23
acrtanacng aytgrtaytt ngt

<210> 92
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence encoded by SEQ ID NO. 91

<400> 92

Thr Lys Tyr Gln Ser Val Tyr Val
1 5

<210> 93
<211> 23

<212> DNA
<213> Artificial Sequence

<220>
<223> degenerated oligo

<220>
<221> VARIANT
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<223> n = I (Inosine)

<400> 93
gcdatnacrc aytcrtcyyt ytc

23

<210> 94
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence endoced by SEQ ID NO. 86

<400> 94
Gly Phe Thr Trp Pro Gly Thr Phe
1 5